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ABSTRACT

The current emphasis on educational reform recognizes the importance of effective teachers as a basic component of quality schools. Current research is focusing on the characteristics of effective teachers. Self-efficacy, a component of social learning theory, has been shown to affect performance in many different areas. This study is the first phase of the development of a teaching efficacy scale. The purpose of this study is to develop a list of specific behaviors identified through a job analysis and derived from theory. The Job Analysis Survey is a 50-item, Likert-type scale comprised of 5 major categories identified as core components of teaching by the National Board for Professional Teaching Standards. This instrument was administered to preservice and practicing educators (N=43) in schools in Connecticut and Pennsylvania. The data were analyzed to identify the relative importance of the five major categories. In addition, the mean importance of each item was determined. The results of this job analysis will be used to determine the composition of the Teaching Efficacy Scale. (Author)

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TEACHING EFFICACY SCALE:

JOB ANALYSIS AND THEORETICAL FACTORS

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TEACHING EFFICACY SCALE:

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Abstract

The current emphasis towards educational reform recognizes the importance of effective teachers as a basic component of quality schools. Current research is focusing on the characteristics of effective teachers. Self-efficacy, a component of social learning theory, has been shown to affect performance in many different areas. This study is the first phase of the development of a teaching efficacy scale. The purpose of this study is to develop a list of specific teaching behaviors identified through a job analysis and derived from theory.

The Job Analysis Survey is a 50-item, Likert-type scale comprised of five major categories identified as core components of teaching by the National Board for Professional Teaching Standards. This instrument was administered to pre-service and practicing educators in schools in Connecticut and Pennsylvania.

The data were analyzed to identify the relative importance of the five major categories. In addition, the mean importance of each item was determined. The results of this job analysis will be used to determine the composition of the Teaching Efficacy Scale.

TEACHING EFFICACY SCALE:
JOB ANALYSIS AND THEORETICAL FACTORS

Statement of the Problem

The United States is beginning to comprehend that its future is dependent upon providing quality educators to it's children. In order to provide first class schools, it is essential to have first class educators. Current research is focusing on many characteristics of effective teachers (Baratz- Snowden, 1990; Leinhart, 1990; Reimann, 1990).

Self-efficacy, a component of social cognitive theory, is an individual's perception of how effectively one can perform specific behaviors. Research has shown that perceptions of self-efficacy influence motivation, persistence, and accomplishments (Bandura, 1986). This study is the first phase of the development of a teacher self-efficacy scale. The purpose of this study is to develop a list of specific teaching behaviors identified through a job analysis of educators and derived from theory.

Conceptual Framework

Educational psychologists have identified several components of effective teaching, which include knowledge of child development, learning theories, assessment, classroom

management and organization, and accommodation of individual differences among students (Biehler & Snowman, 1990; Slavin, 1991). Research studies have focused on specific elements of effective teachers. Brophy (1981) discussed the impact of praise in working with students. Other researchers have reported that effective classroom managers tend to use criticism less frequently than ineffective classroom managers (Brophy & Evertson, 1976). Research has shown that effective teachers are capable of varying teaching techniques to meet the needs of individual students (Woolfolk, 1990).

The National Board for Professional Teaching Standards (NBPTS) (1989) has identified several core factors that characterize teachers who effectively enhance student learning. These factors include the following: (a) membership in the learning community, (b) reflection and decision making, (c) classroom management and monitoring student learning, (d) knowledge of subject and pedagogy, and (e) knowledge of students and their learning. These core factors provide a model of effective teaching practice which encompass the findings of current educational research.

The integration of the findings from the research on effective teachers and the core factors delineated by the National Board for Professional Teaching Standards generated a pool of behaviors important in effective teaching. In

addition to these skills and behaviors which are derived from empirical investigation, several experts in the field suggest that "personal factors" may also contribute to a teacher's effectiveness in the classroom (Berman & McLaughlin, 1977; Gibson & Dembo, 1984; Saklofske, Michayluk, & Randhawa, 1988).

The theoretical framework of this study is based on the work of Bandura (1986). Research on self-efficacy has shown that perceptions of efficacy can affect a person's motivation, choice of activities, time on task and the effort expended, and persistence in the face of difficulty (Bandura, 1989).

According to self-efficacy theory, appraisals of self-efficacy are derived from information obtained from the following sources: past experiences, modeling, verbal persuasion, physiological states. Research indicates that the most influential source of efficacy information is obtained from past experiences and performance. Therefore, these experiences may influence individuals' perceptions of their teaching efficacy.

The construct of self-efficacy has been applied to a variety of diverse areas, one application of self-efficacy theory has been in the field of education. According to self-efficacy theory, an educator with high teaching efficacy

will engage in activities that promote the development of competencies, whereas teachers with low efficacy may avoid engaging in those activities. Thus, the teacher with high teaching efficacy may increase the opportunities to experience success and enhance skills (Bandura, 1989).

Methodology

Sample

The Job Analysis Survey was administered to forty-three pre-service and practicing educators enrolled in courses at Universities in Connecticut and Pennsylvania. Twenty-two percent of the sample are males and seventy-eight percent are females. Beginning teachers (pre-service and first year) comprised 44% of the sample while the remaining 51% are more experienced teachers. Only seven percent of the sample are administrators. The majority of subjects in the sample are white (93%). African-Americans and Hispanics comprised the remaining seven percent of the sample. Seventy-nine of the sample report working in suburban school districts, 9% report working in urban schools, and 12% report working in rural schools.

The subjects were informed of the nature and purpose of this research, and were assured that their responses would

remain anonymous. All subjects volunteered to complete the Job Analysis Survey.

Instrument

The Job Analysis Survey is a 50-item, Likert-type scale comprised of five major categories identified as core components of teaching by the NBPTS: (a) knowledge of students and their learning; (b) knowledge of the subject and of pedagogy; (c) management and monitoring of student learning; (d) reflection and decision-making; and (e) membership in the learning community. Each of these categories is composed of a minimum of 10 items reflecting teaching behaviors and skills identified in the literature as typical and important. Examples of the Job Analysis Survey are included in Table 1. The subjects in this research were asked to rate the importance of each item from "Not Important" to "Very Important" on a four point scale. In addition, the sample was asked to rate the importance of the five overall categories: (a) membership in the learning community, (b) reflection and decision making, (c) classroom management and monitoring student learning, (d) knowledge of subject and of pedagogy, and (e) knowledge of students and their learning.

Table 1.

Examples of Items from the Job Analysis Survey

	Not Important 1	2	3	Very Important 4
1. Ability to work with administrators to implement changes in school policy.....				
2. Ability to work collaboratively with parents.....				
3. Ability to make effective decision based on professional knowledge and prior experience when dealing with disruptive students.....				
4. Attaining the maximum time-on-task within the classroom.				
5. Providing a variety of learning experiences				

Data Analysis

Frequency tables were generated for each of the variables in the study. Medians were calculated for each of the items in the Job Analysis Survey.

Results and Discussion

Table 2 presents the results of the analyses of the items representing specific teaching skills. Overall, only four individual skills were viewed by more than 10% of the

educators as unimportant. Two skills (establishing a positive classroom environment and the ability to instill in the student a positive attitude towards education and learning) were identified as important by all of the respondents.

Table 2

Importance of Selected Job Analysis Survey Items

Items	% Unimportant
Least Important	
5. Ability to foster a cooperative relationship between school and family.	9.3
35. Know how to encourage students to apply knowledge learned in one situation to other situations.	14.0
37. Help students develop higher order thinking skills.	14.3
44. Ability to incorporate prevailing theories of cognition and intelligence in practice.	20.9
Most Important	
30. Establishing a positive classroom environment.	0.0
50. Ability to instill in the student a positive attitude towards education and learning.	0.0

Additional analyses were conducted to determine if experienced and beginning differed in their judgement of the importance of specific classroom skills. The pattern of responses to the importance of the skills was similar for both groups. However, for the few item differences that did emerge, more experienced teachers viewed the specific skills as important when compared to beginning teachers. For example, 17% of beginning teachers and 4% of experienced teachers viewed the ability to foster a cooperative relationship between school and family was not important.

Table 3 presents results of the ranking of importance of the five general categories. Overall, the subjects ranked knowledge of students and their learning as the most important and membership in the learning community as the least important. Both beginning and experienced teachers agreed with the least and most important category. However, it is interesting to note the difference in the judgement of importance of the middle categories. There is a reversal of judgement for knowledge of subject and pedagogy and reflection and decision making. Perhaps beginning teachers are more concerned with daily practical issues, rather than long range issues.

Table 3

Median Ranking of Job Analysis Survey General Categories

Categories	Overall	Beginning	Experienced
Membership in the learning community	5	5	5
Reflection and decision making	4	3	4
Classroom management and monitoring of student learning	3	3	3
Knowledge of the subject and of pedagogy	3	4	2
Knowledge of students and their learning	1	1	1

Conclusions

The findings of this study indicate a consensus among educational researchers, NBPTS, practicing educators, and pre-service educators with respect to the importance of specific skills of effective teaching. This study found that beginning and experienced educators judged the importance of some items differently. It was encouraging to note that experience appeared to validate the importance of the skills.

Knowledge of students and their learning was identified by both beginning and experienced educators as the most important general category of skills. In addition, membership in the learning community was ranked as least important by both groups.

The limited representativeness of this sample suggests caution when interpreting and generalizing the result. However, these results support the use of these skills as a preliminary pool of items in a pilot study of Teaching Efficacy Scale.

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